

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-17. (*Cancelled*).

18. (*Currently Amended*) A shaped body of a superconducting material based on (Rare Earth)BaCuO, wherein Rare Earth signifies ~~which is obtained by a method in accordance with claim 1, characterised in that it contains~~ at least one element selected from the group consisting of Y, La, Ce, Pr, Nd, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb and Lu, and in that the shaped body it has a maximum value of remanent induction at 77 K and 0 T of at least 1100 mT, the maximum value of remanent induction obtained by applying a coating material to at least one part of at least one surface of the shaped body, wherein the coating material melts at least partially at a lower temperature than the material of the shaped body, the shaped body and the applied coating material having been heated to a desired temperature at which the material of the shaped body does not yet partially melt but at least partially softens, the applied coating at least partially infiltrating a region near the surface of the shaped body when that region is modified at a temperature at least as high as the desired temperature, and the shaped body being enriched with oxygen to increase at least one of the remanent induction and the critical current density of the shaped body.

19. (*Previously Presented*) A shaped body in accordance with claim 18, characterised in that the alignment of the c-axes of the grains or of the one grain of a cylinder, a ring, a tube or a disc consisting substantially of one or more segments is substantially in line with an axis of the shaped body, or, it is at right angles thereto.

20. (*Previously Presented*) A shaped body in accordance with claim 18, characterised in that it substantially comprises a composition of $(\text{Rare Earth})_1\text{Ba}_2\text{Cu}_3\text{O}_x$ where x lies in the range from 6.5 to 7 and wherein at least one element of Rare Earth may be in excess.

21. (*Previously Presented*) A shaped body in accordance with claim 18, characterised in that it consists to more than 60 Vol.-% of one phase of the composition $(\text{Rare Earth})_1\text{Ba}_2\text{Cu}_3\text{O}_x$ where x lies in the range from 6.5 to 7.

22. (*Currently Amended*) A shaped body in accordance with claim 18, characterised in that it has a critical transport current density of at least $4 \times 10^4 \text{ A/cm}^2$ in the external field of 1 T at 77 K.

23. (*Previously Presented*) A shaped body in accordance with claim 18, characterised in that it has a fracture toughness as determined by the fracture system about the hardness impressions of at least 1 Mpa $\sqrt{\text{m}}$.

24. *(Cancelled)*.

25. *(Previously Presented)* The use of a shaped body consisting of a superconducting material in accordance with claim 18 for transformers, current breakers, power leads, magnetic screenings, magnetic bearings or/and as magnets, especially as cryogenic bearings, in flywheel storage devices, in particle accelerators, in the rotors of electrical machines.

26. *(Previously Presented)* A shaped body as claimed in claim 18, wherein said shaped body has a maximum value of remanent induction at 77 K and 0 T of at least 1200 mT.

27. *(Previously Presented)* A shaped body as claimed in claim 26, wherein said shaped body has a maximum value of remanent induction at 77 K and 0 T of at least 1300 mT.

28. *(Previously Presented)* A shaped body as claimed in claim 27, wherein said shaped body has a maximum value of remanent induction of more than 1400 mT.

29. *(Previously Presented)* A shaped body as claimed in claim 21, characterised in that it consists of more than 80 Vol.-% of said one phase of the composition.

30. *(Previously Presented)* A shaped body as claimed in claim 29, characterised in that it consists of more than 90 Vol.-% of said one phase of the composition.

31. (*Currently Amended*) A shaped body as claimed in claim ~~30~~ 31, characterised in that it consists of more than 95 Vol.-% of said one phase of the composition.

32. (*Currently Amended*) A shaped body in accordance with claim 22, characterised in that it has a critical transport current density of at least 6×10^4 A/cm².

33. (*Currently Amended*) A shaped body in accordance with claim 32, characterised in that it has a critical transport current density of at least 8×10^4 A/cm².

34. (*Previously Presented*) A shaped body in accordance with claim 23, characterised in that it has a fracture toughness as determined by the fracture system about the hardness impressions of at least 1.5 Mpa \sqrt{m} .

35-42. (*Cancelled*).

DRAFT AMENDMENT UNDER 37 C.F.R. § 1.111
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AMENDMENTS TO THE DRAWINGS

Since the Examiner has failed to respond to Applicants' Request for Approval of Proposed Drawing Corrections dated April 18, 2003, Applicants are filing corrected drawings with this Amendment.

Attachment: Three (3) Replacement Sheets